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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,603	01/28/2000	Sung-Bae Jun	P-081	2452

34610 7590 10/06/2003

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EXAMINER

NGUYEN, MAIKHANH

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 10/06/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/493,603

Applicant(s)

JUN, SUNG-BAE

Examiner

Maikhanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: original application filed 01/28/2000; IDS filed 05/05/2003.
2. Claims 1-21 are currently pending in this application. Claims 1, 4, 9 and 13 are independent claims.

Claim Objections

3. Claims 15-21 are objected to because of the following informalities: "the method" should read "the apparatus".

Appropriate correction is required.

Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or " (Emphasis added.)

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by **Smith et al.**

(U.S. 6,223,183).

As to **independent claim 1**, Smith teaches a method of describing a multiple level digest segment information scheme for multimedia contents in order to provide multiple levels of digest streams for each multimedia content with small amount of additional storage (*uniformly describing space and frequency views... including regions, tilings and hierarchical decompositions of image, video, audio content, and time series data in space, time, frequency and resolution. The space and frequency view description scheme provides a way to specify regions in space, time, frequency and resolution in term of space and frequency views; abstract*) in accordance with an embodiment comprising the steps of:

- describing the level information of digest segments by multiple levels in the content-based data area of the multimedia stream (*describe any arbitrary multi-resolution decomposition of any number of levels of the image or video data; col.6, lines 41-55*);

- describing the digest level information and the time range information of each digest segment in a digest segment information structure (*the space and frequency view description scheme defines several object classes for specie regions in multi-dimensional rectangular region in space and frequency ...to describe locations, durations, sizes and regions in space and frequency; col. 7, lines 9-30/ The view requests can be represented in the form of SFViews to provide a uniform, standard interface for specifying the space, time, frequency and resolution parameters of the views; col. 11, lines 15-23*); and

- describing digest segment information scheme with a set of digest segment information structures (*the space and frequency view description scheme can provide an abstraction layer between image, video and audio description schemes; col.10, lines 30-50/it can be important to describe the color of different regions of the image... The space and frequency view description*

scheme can be used to specify each of the regions in terms of SFViews, and by associating a color measurement function with the space and frequency view description scheme; col.12, lines 10-18 and Fig. 15).

As to dependent claim 2, Smith teaches the time range information is the start point and end point of or the start point and duration of the digest segment (*col.4, lines 13-65*).

As to dependent claim 3, Smith teaches a digest level running time information or a digest stream running time information is added to the digest segment information scheme, in which the digest level running time information is information about the sum of the running time of digest segment information structures of the same digest level is described according to digest levels, and the running time information of the digest stream is a running time information of a possible digest streams (*Figs.8-10*).

As to independent claim 4, the rejection of independent claim 1 above is incorporated herein in full. However, claim 4 further recites “a digest stream information scheme with a set of digest level headers.”

Smith teaches a digest stream information scheme with a set of digest level headers (*Fig. 10*).

As to dependent claims 5-6, note the rejections of claims 2-3 *supra*.

As to dependent claim 7, Smith teaches the digest level headers can be arranged with the order of importance (level) in order to construct a digest stream from multi level digest segment information scheme fast (*Fig. 10*).

As to dependent claim 8, Smith teaches the digest level segment information structures can be arranged with the order of their time range information in order to construct a digest stream from multi level digest segment information scheme fast (*col.5, lines 13-65*).

As to independent claim 9, Smith teaches a method of generating multiple levels of digest streams for multimedia contents (*uniformly describing space and frequency views... including regions, tilings and hierarchical decompositions of image, video, audio content, and time series data in space, time, frequency and resolution. The space and frequency view description scheme provides a way to specify regions in space, time, frequency and resolution in term of space and frequency views; Abstract*) in accordance with the present invention comprising the steps of:

- detecting the digest level and time range information of the digest segment information structures from the multiple level digest stream information scheme contained in the content-based data area of the multimedia stream (*the space and frequency view description scheme defines several object classes for specie regions in multi-dimensional rectangular region in space and frequency ...to describe locations, durations, sizes and regions in space and frequency; col. 7, lines 9-30/ The view requests can be represented in the form of SFViews to provide a uniform, standard interface for specifying the space, time, frequency and resolution parameters of the views; col. 11, lines 15-23*);

- when a condition is queried by the user, generating a multiple level digest stream by arranging the digest segments with a priority of more than a certain level corresponding to the condition in a time sequence (*the client can send the requests for different multi-resolution sub-region views to the server. The server can respond by retrieving the views from storage and*

transmitting the results to the client. The view requests can be represented in the form of SFViews to provide a uniform, standard interface for specifying the space, time, frequency and resolution parameters of the views. The data at the server can also be represented using SFPartitionings or SFHierarchical decompositions to provide a standard way for accessing the views; col.10, line 65-col.11, line 23).

As to dependent claim 10, note the rejection of claim 3 *supra*.

As to dependent claim 11, Smith teaches a parity check is performed by comparing the total running time of the plurality of digest segments of the same digest level with the digest level running time of that digest level (*col.8, line 32-col.9, line 19 & Figs.10-11*).

As to dependent claim 12, Smith teaches a parity check is performed by comparing the total running time of digest segment information structures having a digest level less than or equal to a particular level among the plurality of digest segments with the digest stream running time of that digest level (*col.8, line 32-col.9, line 19 & Figs.10-11*).

As to dependent claim 14, Smith teaches the condition is the running time of a digest stream (*col.5, lines 13-53*).

As to independent claim 13, the rejection of independent claim 9 above is incorporated herein in full. However, claim 13 recites:

- a user input unit; and
- a decoder for decoding digest segments of the above digest level from the multimedia stream signal.

Smith teaches:

- a user input unit (*a client application can send requests for views of images; abstract*);

- a decoder for decoding digest segments of the above digest level from the multimedia stream signal (*The view requests can be represented in the form of SFViews to provide a uniform, standard interface for specifying the space, time, frequency and resolution parameters of the views. The data at the server can also be represented using SFPartitionings or SFHierarchical decompositions to provide a standard way for accessing the views; col.11, lines 14-23*).

As to dependent claim 15, Smith teaches the condition is one of a time constraint of digest stream, a level information of digest stream, an occurrence of an event, an appearance of a person, a background, an object, situation information about of event, person, object, background (*Figs.12-14*).

As to dependent claim 16, Smith teaches the condition is combination of a time constraint of digest stream, a level information of digest stream, occurrence of events, appearance of persons, backgrounds, objects, situation information about of events, persons, objects, backgrounds (*Figs.12-14*).

As to dependent claim 17, Smith teaches a digest level information and a time range information, and/or the information of the sum of the running time of each digest segment are contained in the digest level (*col.5, lines 13-53*).

As to dependent claim 18, note the rejection of claim 2 supra.

As to dependent claim 19, Smith teaches the digest stream level determining unit comprises: a multiple level digest segment information scheme analyzing unit for computing the running time of each digest stream, by analyzing a multiple level digest segment information scheme contained in the content-based data of the multimedia stream signal; and a digest stream

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information display unit for selecting and querying a running time of a plurality of running times by the user, by displaying the running times by computed digest stream (*col.5, lines 13-53 and col.6, lines 41-55*).

As to dependent claim 20, Smith teaches the digest stream level determining unit comprises: a multiple level digest segment information scheme analyzing unit for computing the running time of each digest stream, by analyzing a multiple level digest segment information scheme contained in the content-based data of the multimedia stream signal; and a digest level determining unit for outputting a digest level of a digest stream corresponding to a running time most close to the queried running time, upon receipt of the above running time (*col.5, lines 13-53 and col.6, lines 41-55*).

As to dependent claim 21, Smith teaches the digest level determining unit compares the running time queried by the user with the running time and/or additional information such as occurrence of events, appearance of persons, backgrounds, objects, situation information about of events, persons, objects, backgrounds of digest stream and digest segment information structures, selects running time most close to the queried running time, and outputs a digest level of the digest stream with the selected running time and/or additional information such as occurrence of events, appearance of persons, backgrounds, objects, situation information about of events, persons, objects to the decoder (*Figs. 12-14*).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goetz et al. U.S Patent No. 5,956,729 issue dated: Sep. 21, 1999

Lindblad et al. U.S Patent No. 6,225,993 issue dated: May 1, 2001

Vaithilingam et al. U.S Patent No. 6,411,724 issue dated: Jun. 25, 2002

He et al. U.S Patent No. 6,557,042 issue dated: Apr. 29, 2003

Haus et al. "Describing and Processing Multimedia Objects By Petri Nets", IEEE, 1997, pages 3906-3911.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (703) 306-0092. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5403 for regular communications and (703) 308-5403 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Contact Information:

Any response to this action should be mailed to:

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Or fax to:

AFTER-FINAL faxes must be signed and sent to (703) 746-7238.

OFFICIAL faxes must be signed and sent to (703) 872-9306.

NON OFFICIAL faxes should be sent to (703) 746-7240.

All OFFICIAL faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the Office, e.g., Finance Division for fee charging, etc.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses directly to the Examiner.

Maikhanh Nguyen
September 30, 2003


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